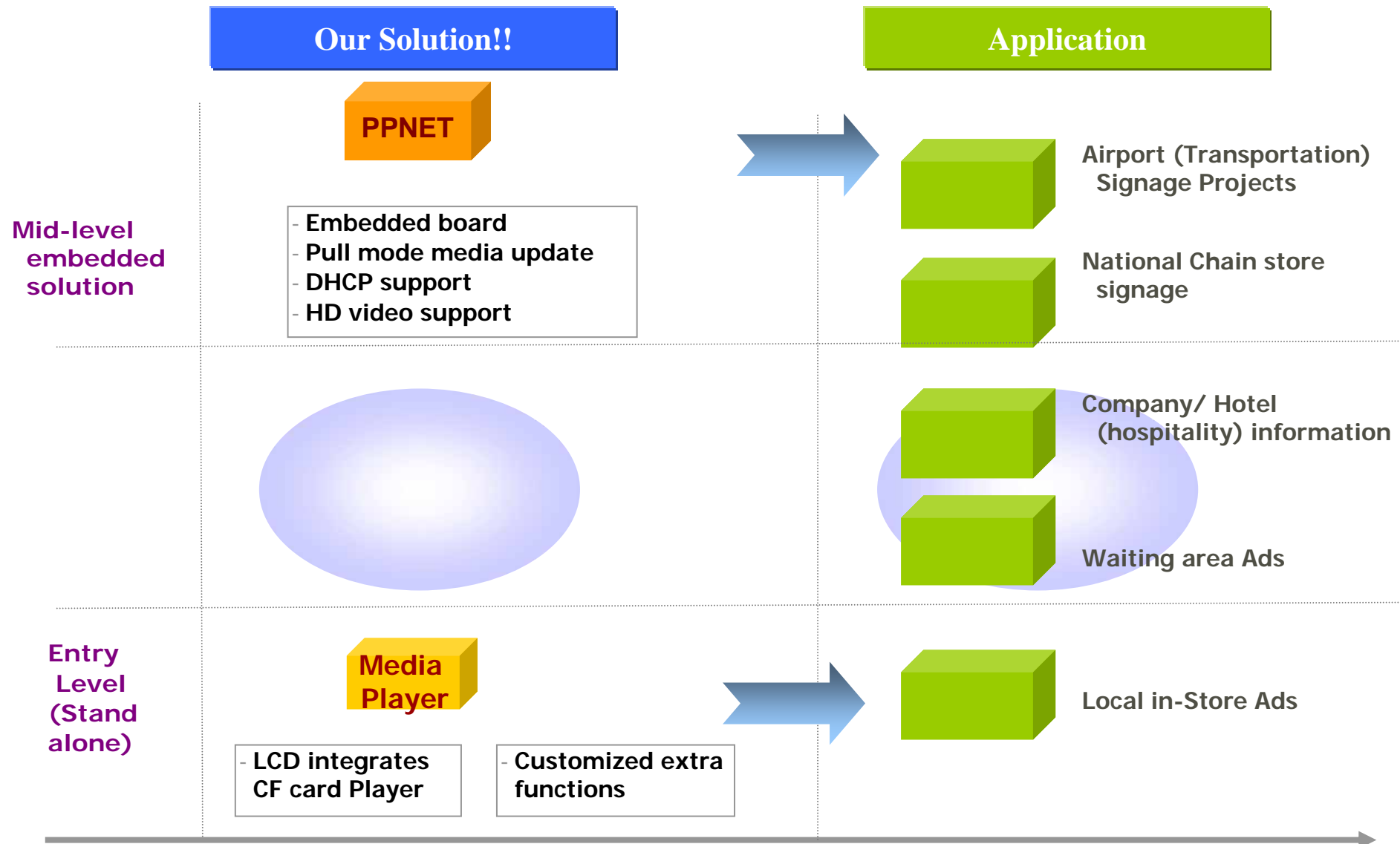




PPNET

Our Solutions for Digital Signage



Summarized Features

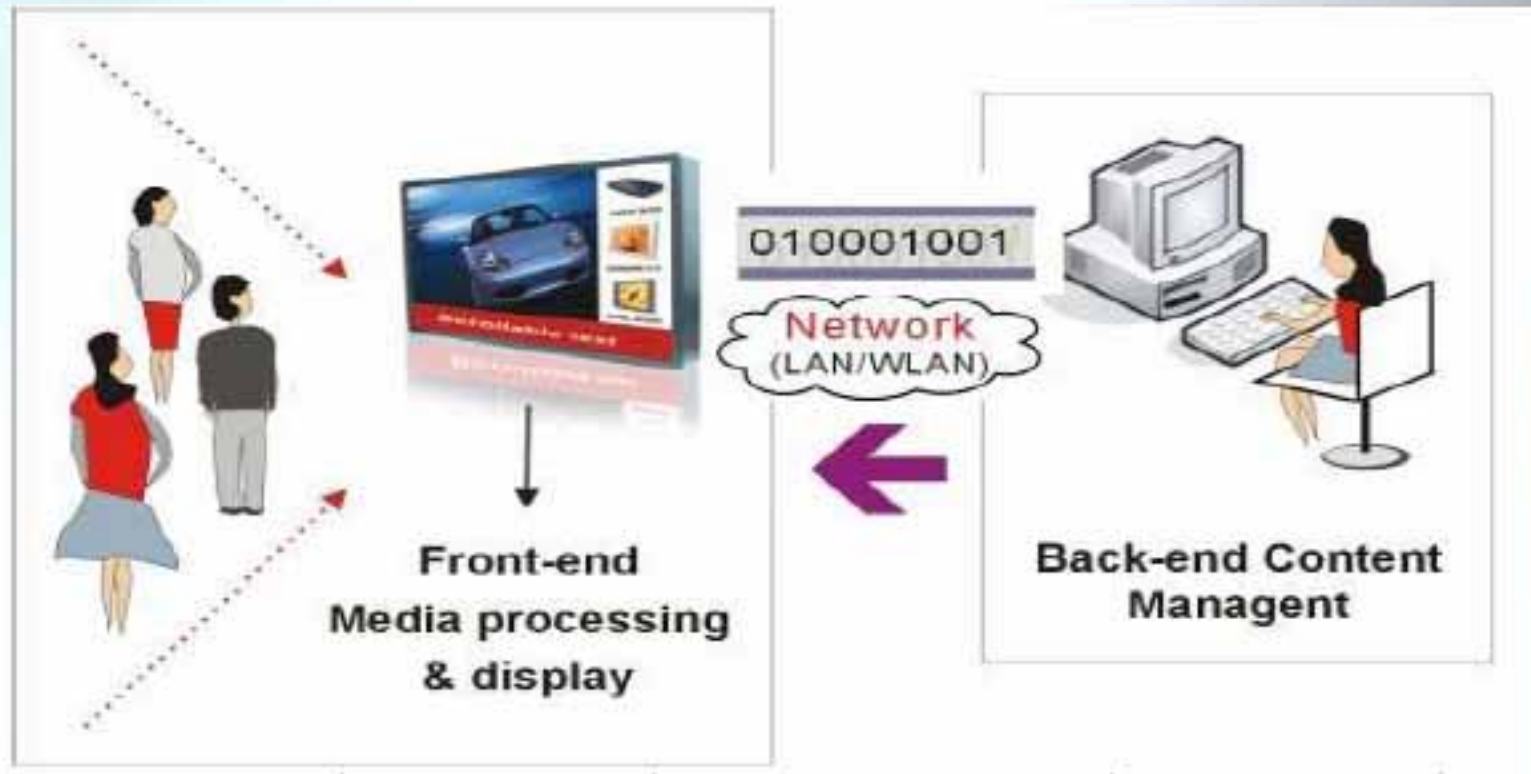
- **Simple/Reliable SoC Multimedia Platform**
- **All-in-one Full-range LCD solutions**
- **Easy-to-Use User Interface**
- **Focus on Simple/Specific/ Network Required**
- **Application**
- **Low Total Ownership cost**

Specifications



Core Processor	Sigma Designs – Single chip digital media processor (embedded 32-bit RISC CPU)
Media Decoding	H/W MPEG decoding Engine DSP-based audio decoders
Storage Interface	IDE device (Needed to be Linux ext2 format) Compact Flash -512MB (bigger size as optional) Or 2.5" HDD – 40GB(optional)
External Storage	USB 2.0 Flash Drive device (for storage device only)
Video Outputs (for Box only)	DVI-I (can be converted into VGA) S-Video NTSC/PAL Composite
Extra VGA output	Display in another monitor (LCD only)
Audio	Stereo 2W x2 Speaker (LCD only)
Network	10/100 Base T Ethernet (RJ-45) Internal miniPCI for wireless LAN (optional)
Power Input	12V DC input

Overview of Solution



Multiple Zones Display



Output Resolution V.S Zone Size (in pixel)

Output Resolution	Video/Pic Zone	Pic Zone	Message Zone
640 x 480	512 x 420	128 x 420	640 x 60
800 x 600	640 x 540	160 x 540	800 x 60
1024 x 768	820 x 708	204 x 708	1024 x 60
1280 x 960	1024 x 900	256 x 900	1280 x 60
1280 x 1024	1024 x 964	256 x 964	1280 x 60
1360 x 768	1088 x 708	272 x 708	1360 x 60

Network Signage Player Plus

Content Presentation

Graphics x3

Video

Scrollable
text x3



Server Software

- MSO Plus (Win2000/XP based)

Data Updated

Ethernet, WLAN

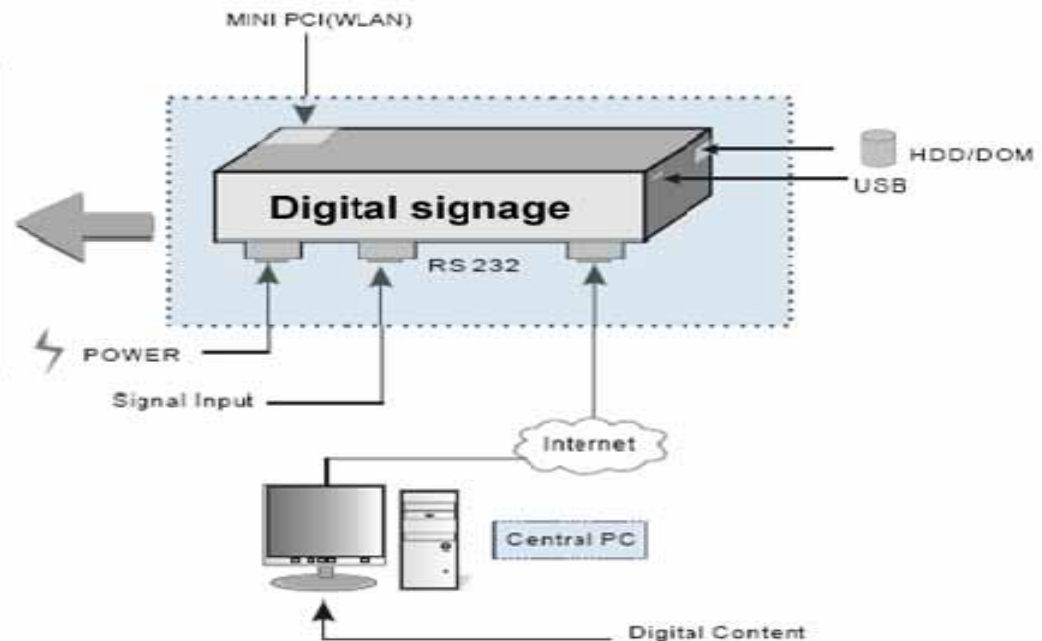
USB Flash Drive

Storage

DOM or 2.5" HDD

Key Features

- Play Unit Platform: uClinux
- Scheduled Playback, Flexible Screen Layout
- RS-232 Control (optional)



Support VIDEO Format (MPEG1)

Type	Support Format	File extension	
Video (16:9 & 4:3)	MPEG1 (VCD file)	.mpg .dat	
	Support Format		
	Video Data rate		Up to 10.0 Mbit/sec
	Audio Codec		Max. audio data rate: 384 Kbps MPEG1-Audio-Layers II and III(mp3) *PCM not supported

Note: *1: Most of current DVD/ MPEG2 can be supported.

Support VIDEO Format (MPEG2)

Type	Support Format	File extension						
Video (16:9 & 4:3)	<div>MPEG2 MP@HL</div> <div>Multi-frames: Max. 480p or 576p</div> <div><table><tr><th colspan="2">Support Format</th></tr><tr><td>Video Data rate</td><td>Up to 6.0 Mbit/sec</td></tr><tr><td>Audio Codec</td><td>Max. audio data rate: 384 Kbps MPEG1-Audio-Layers II and III(mp3) *PCM not supported</td></tr></table></div>	Support Format		Video Data rate	Up to 6.0 Mbit/sec	Audio Codec	Max. audio data rate: 384 Kbps MPEG1-Audio-Layers II and III(mp3) *PCM not supported	<div>.vob</div> <div>.mpg</div> <div>.mpeg</div> <div>.m2p</div>
Support Format								
Video Data rate	Up to 6.0 Mbit/sec							
Audio Codec	Max. audio data rate: 384 Kbps MPEG1-Audio-Layers II and III(mp3) *PCM not supported							

Support VIDEO Format (MPEG4)

Type	Support Format	File extension						
Video (16:9 & 4:3)	MPEG4 Multi-frames: Max. 480p or 576p <table border="1"><thead><tr><th colspan="2">Support Format</th></tr></thead><tbody><tr><td>Video Data rate</td><td>Up to 4.0 Mbit/sec</td></tr><tr><td>Audio Codec</td><td>Max. audio data rate: 384 Kbps MPEG1-Audio-Layers II and III(mp3) *PCM not supported</td></tr></tbody></table> DivX 3.11/4.x/5.x	Support Format		Video Data rate	Up to 4.0 Mbit/sec	Audio Codec	Max. audio data rate: 384 Kbps MPEG1-Audio-Layers II and III(mp3) *PCM not supported	.vob .mpg .mpeg .m2p
Support Format								
Video Data rate	Up to 4.0 Mbit/sec							
Audio Codec	Max. audio data rate: 384 Kbps MPEG1-Audio-Layers II and III(mp3) *PCM not supported							

Video File Comparison and Media Formats

Format	VCD	DVD	AVI/DivX/XviD/WMV	
Resolution	352x240	720x480	640x480	
Video Compression	.mpg .dat	.vob .mpg .mpeg .m2p	.mpg .avi .divx .xvid	
Video bitrate	~10.0 Mbps	~6.0 Mbps	~4.0 Mbps	
Audio Compression	MPEG1-Audio-Layers II and III(mp3)	MPEG1-Audio-Layers II and III(mp3)	MPEG1-Audio-Layers II and III(mp3)	
Audio bitrate	~384kbps	~384kbps	~384kbps	
Size/min	10 MB/min	30-70 MB/min	4-10 MB/min	
Quality	Good	Excellent	Great	

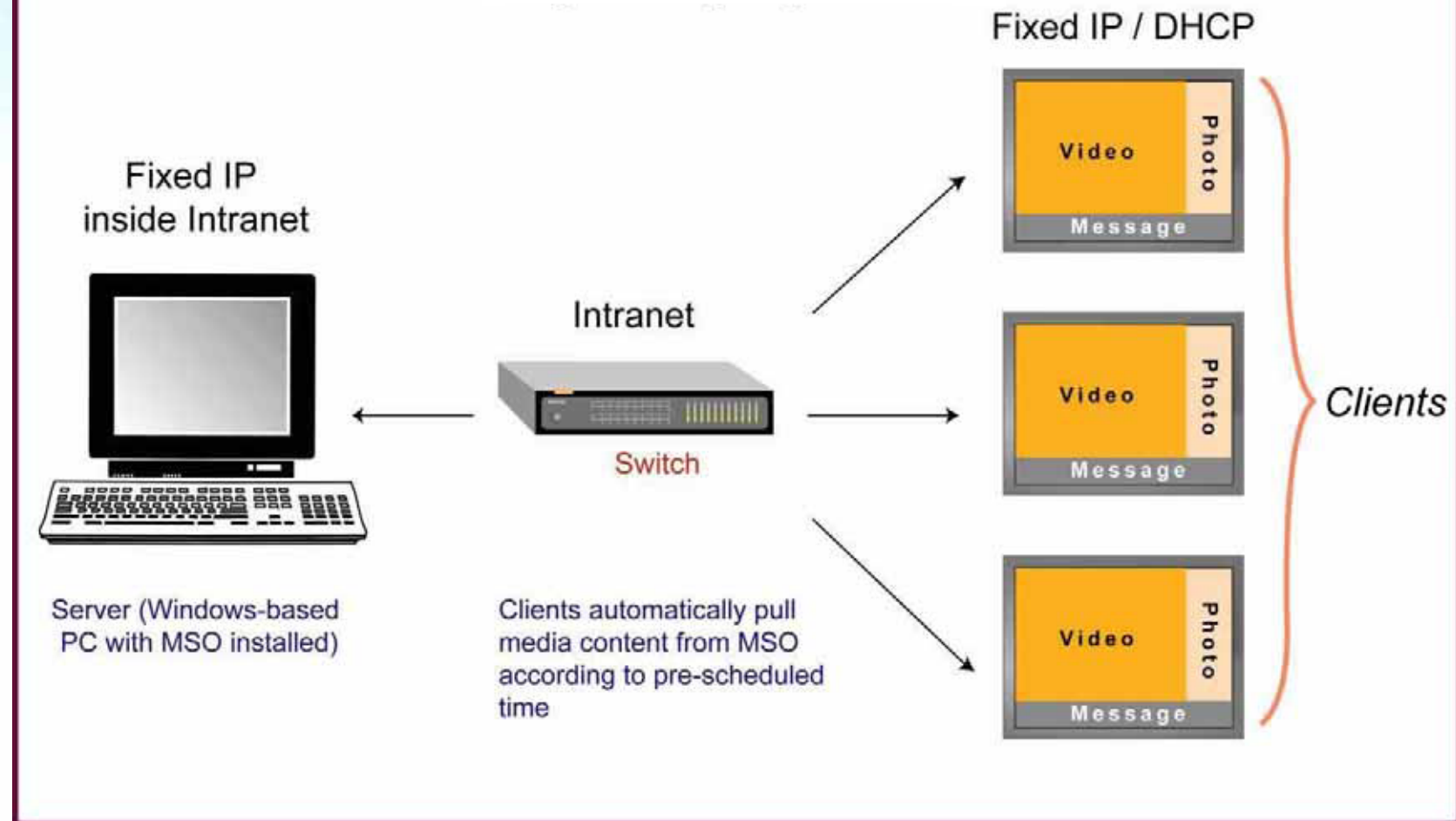
Other Supported Formats:

Graphic Format Support: JPEG, BMP

Text Banner: TXT

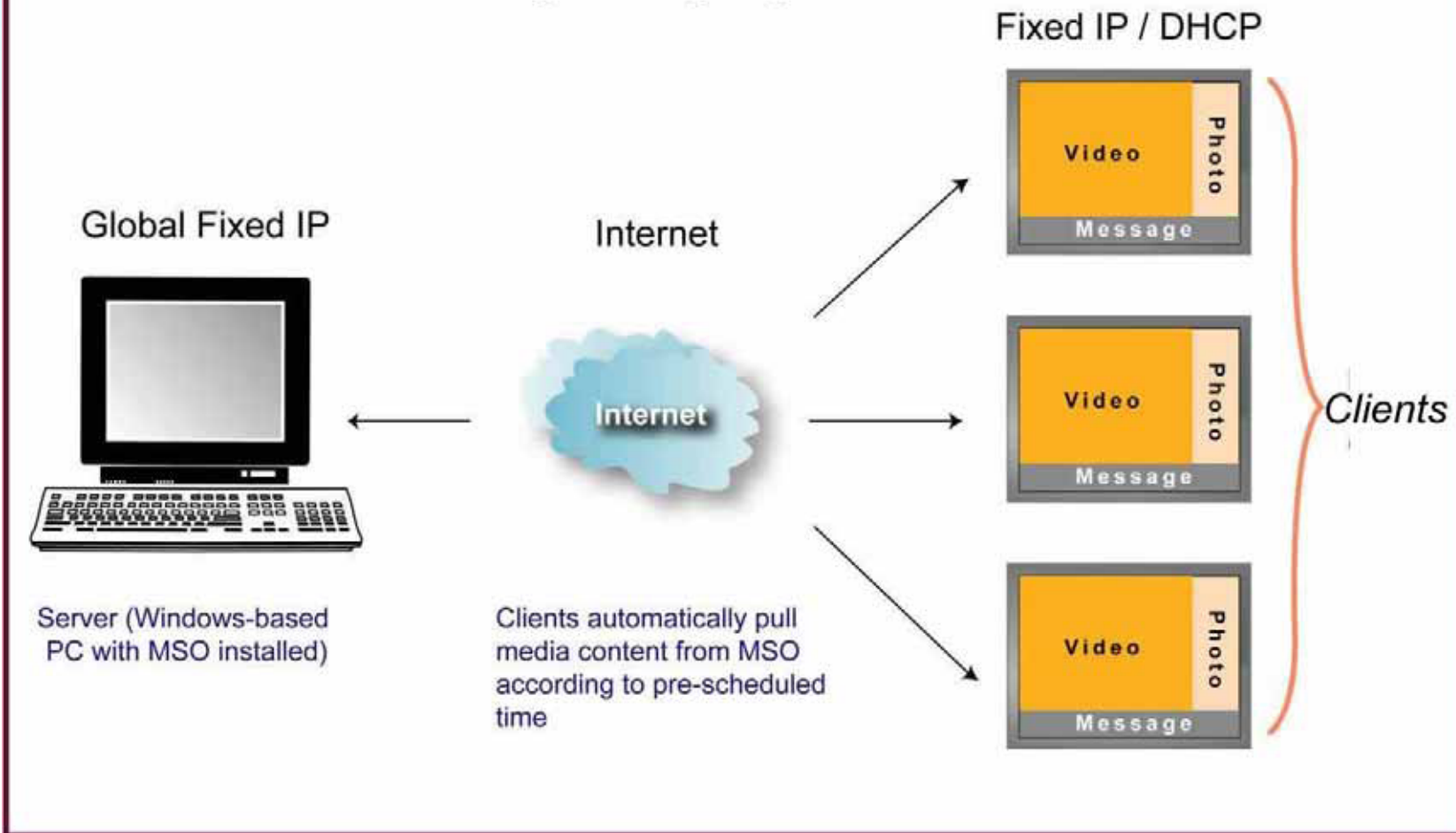
File Transferring

Digital Signage PPNET



File Transferring

Digital Signage PPNET



MSO Plus Factory Setting

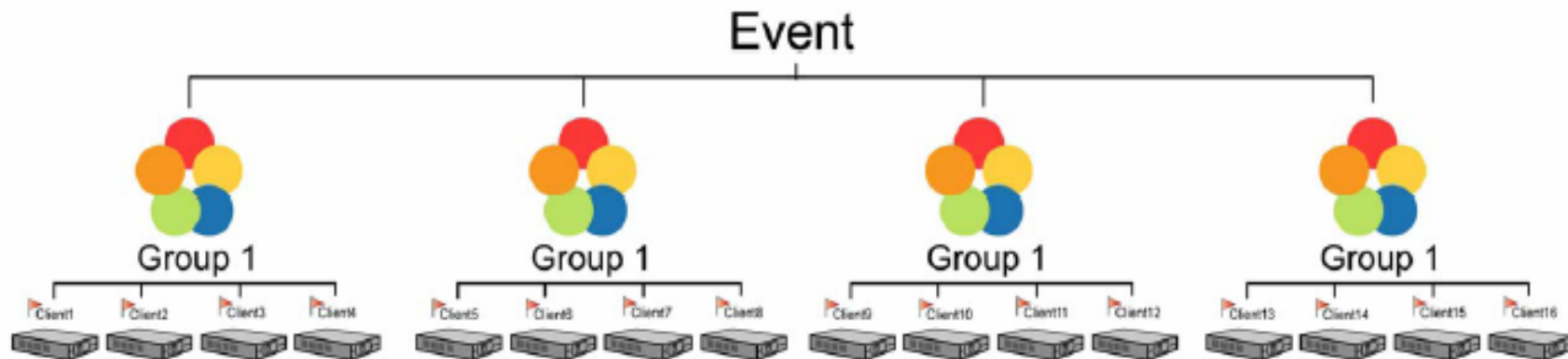
- MSO PLUS will automatically connect to SERVER , therefore, you should set the Server IP to be 192.168.0.188
- An alternative way is store IP settings in USB and apply it to clients

LAN IP	192.168.0.128
LAN Subnet Mask	255.255.255.0
Server IP	192.168.0.188
IP mode	Fixed
LAN Gateway	192.168.0.1
WLAN IP	192.168.252.249
WLAN Subnet Mask	255.255.0.0
IP port	8001,8002,8003* ^[1]

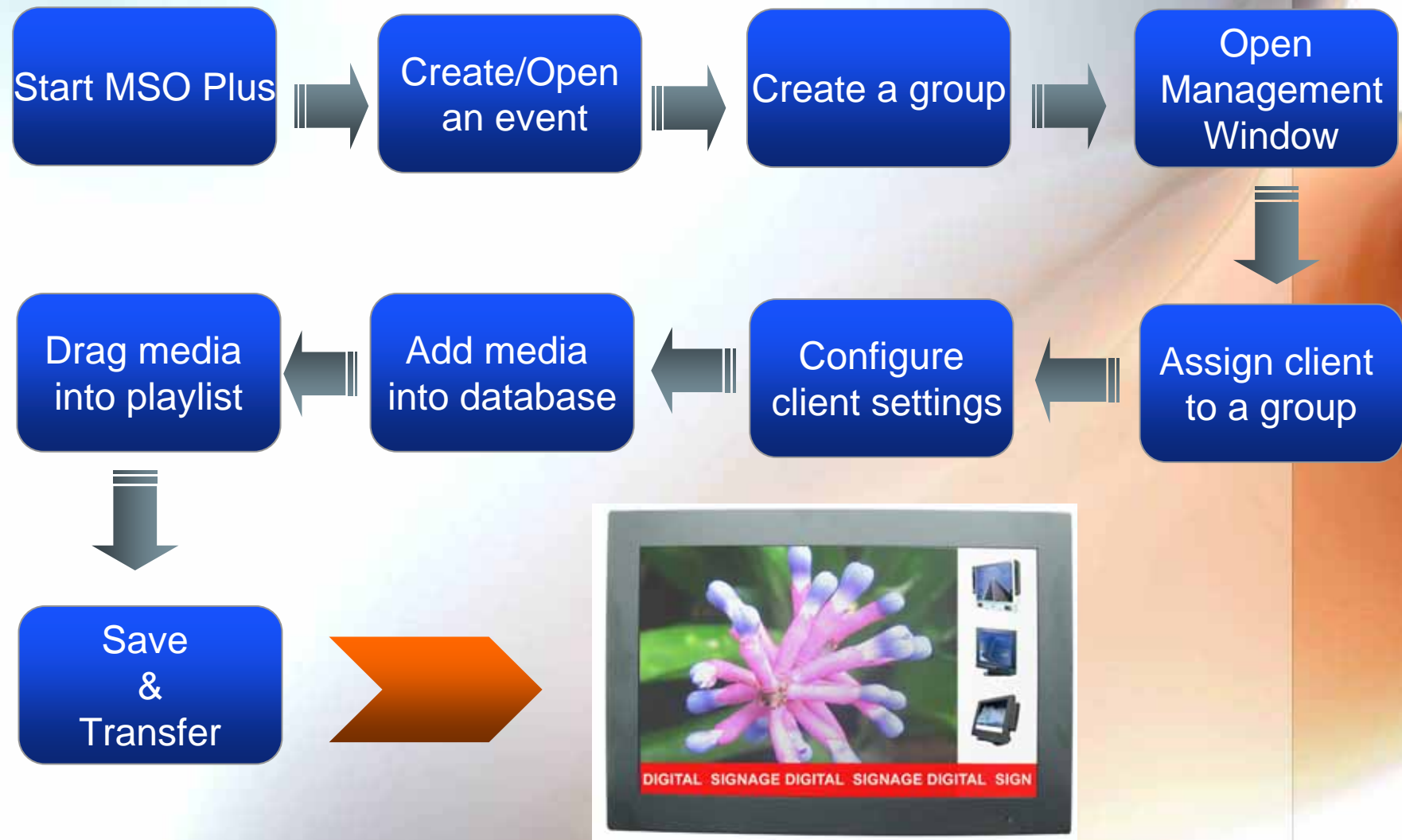
Event

- The client management in MSO Plus is based on hierarchical concept. The highest level in this hierarchy is Event, followed by Group and Client. Every Client belongs to a Group and every Group belongs to an Event. Each time you have to load an Event and work on it.

Hierarchical Concept of Client Management



Playlist Creation Flow



Super Powerful Software-Client Manager

Groups and Clients Management

MAC	Name	Group	Auto Update Time	Auto Time Sync Time	Status	TimeZone
00:10:E1:86:00:2C	Vincent	ActiveTest	12:33	00:00	playing	+08:00

Single Client Configuration

Client's MAC:

Client's Name:

Client's Group:

Auto Update Media Time:

Auto Time Sync Time:

Time Zone: Hr. Min.

NetWork:

Group management

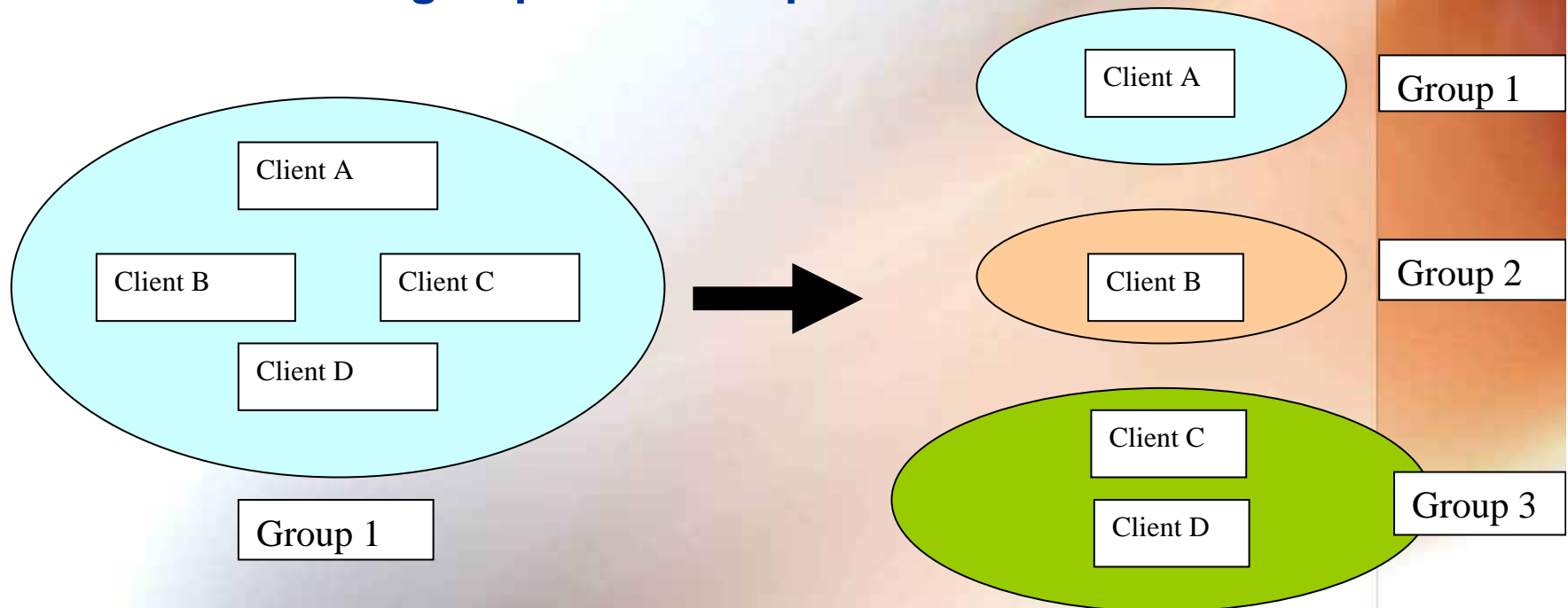
Client Manager

- **Client Manager is a powerful control panel where you can view client information, configure single client, and do group management.**
- **Client information including:**
 - Client MAC address
 - Client Name
 - Group belong to
 - Auto Update Time
 - Auto Time Sync Time
 - Client Status
 - Client Time Zone
- **Items in Single Client Configuration including:**
 - Client Name Setup
 - Client's Group Assignment
 - Client Auto Update Time / Auto Time Sync Time Setup
 - Client Time Zone Setup
 - Client Network Configuration
 - Client Report Obtainment
- **Items in Group Management including:**
 - Group Addition
 - Group Edition
 - Group Deletion
 - Group Report Obtainment

Assign a client to different group with a click

MSO Plus-> open Client Manger -> assign clients to different group from drop-down menu

- Assume you have 100 clients within a group but you would like to assign half of them to different group, what are you going to do? Delete them then create new clients in a group? Signage Plus saves you the hassle. Now you can assign clients to different group with a simple click.



Picture Rotation

- MSO Plus allows you to rotate pictures and display it in portrait mode for more flexible usage

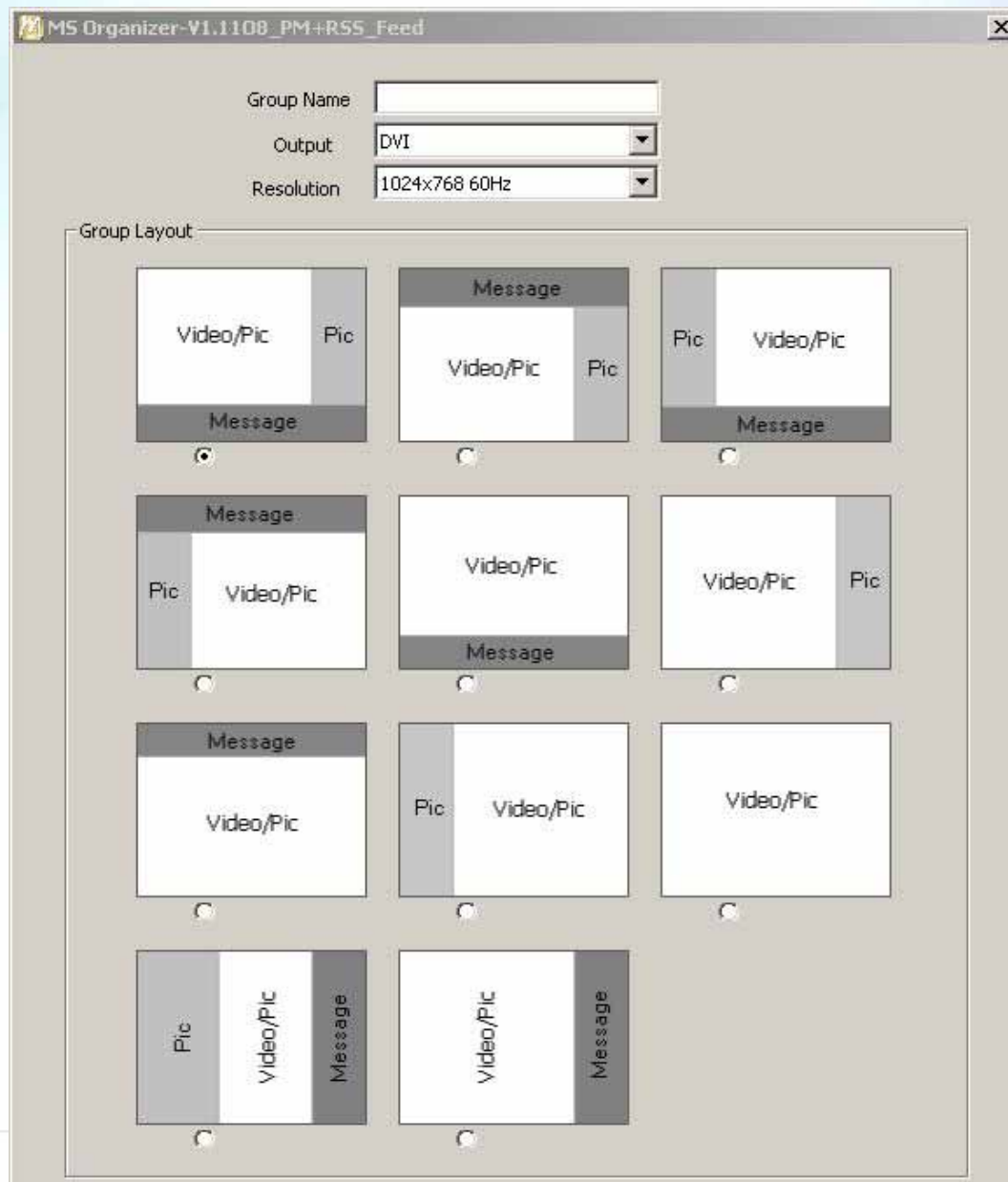


Landscape Mode



Portrait Mode

Multiple Zones Display



11 different
layouts for you to
choose

Portrait Mode

- If choose portrait mode layout from management software, you will be able to display digital content

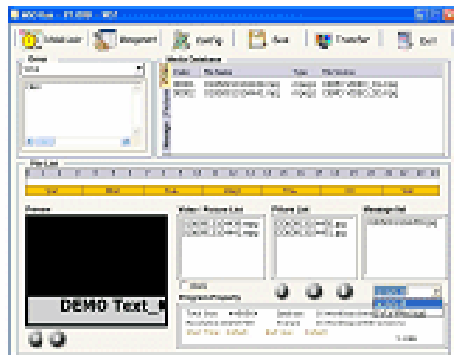
Applications



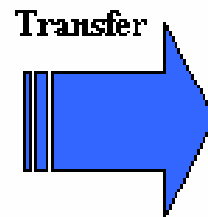
DIGITAL SIGNAGE LCD DISPLAY • INDUSTRIAL LCD DISPLAY • HUMAN MACHINE INTERFACE • EMBEDDED COMPUTING

Instant messages

- The software transfers the instant message to player via network in a very short time in case users need to display urgent message really quick.
- The player temporarily stops the current message and plays the instant message. When the message is done, it returns to the previous message.



Edit Instant Message in MSC



Display message immediately

Auto Time Sync/Auto Media Update

MSO Plus-> open Client Manger -> Set schedule of Auto Time Sync/Auto Media Update

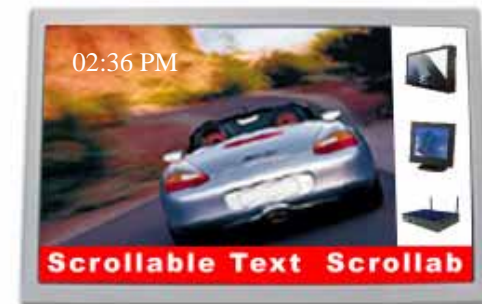
- **Client will automatically synchronize its time with server according to time sync schedule, no matter which time zone it is in.**



Server (Windows-based PC with MSO installed)



**Auto Time Sync
Auto Media Update**



Clients

RSS Feed

1. Create active data (updated automatically)
2. Reduce the Support and update Manpower
3. Attract Customers with actual events from
 - Sports
 - News
 - Politics
 - Aso
4. Use the attraction to make your advertising more powerfull

The screenshot shows a Windows-style application window titled "RSS Feed is DEMO-- Running". The window is divided into three main sections: Basic Control, Advanced Control, and Switch.

Basic Control:

- Group Name: DEMO (dropdown menu)
- Mode: Auto (dropdown menu)
- Source File: C:\ (text field with a Browse button)
- RSS Feed URL: http:// (text field with TEST and ADD buttons)
- RSS List URL: (text field with a dropdown arrow and a DEL button)
- Refresh Time: 0 Hr (dropdown menu) Hours 1 Min (dropdown menu) minutes

Advanced Control:

- Speed: 6 (dropdown menu)
- Scroll: Right -> Left (dropdown menu)
- Showing Text: (text area with a yellow background)
- Set BG Color: (button)
- Set Text: (button)

Switch:

- Run: (button)
- Off: (button)

Exit: (button at the bottom right)

Get Client / Group log

3 files generated for statistics

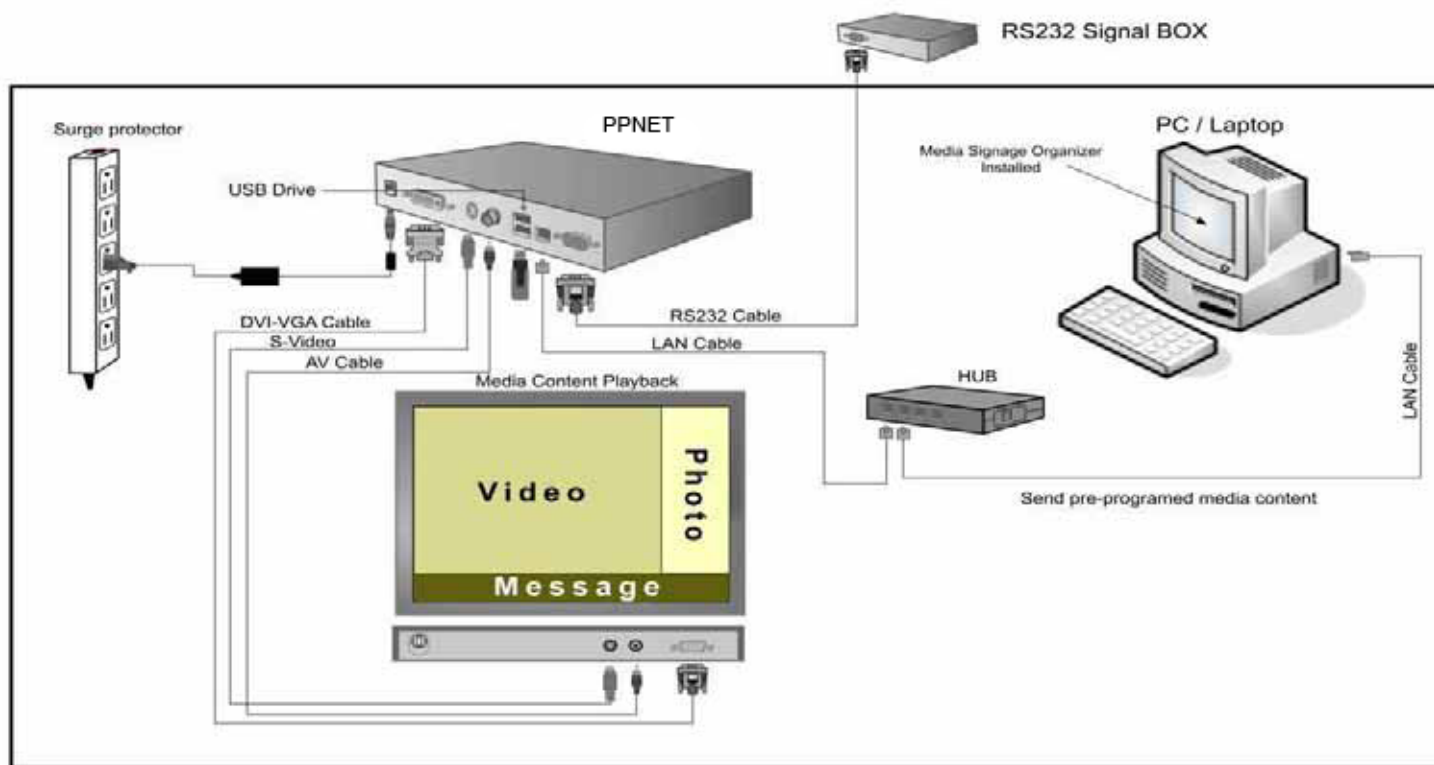


xxx.csv	Can be imported to EXCEL for statistics.
ClientBaseInfo.txt	Contains file name and total playback time based on each client.
FileBaseInfo.txt	Contains client name and total playback time based on each file.

Firmware Update via LAN

MSO Plus -> Config -> FW Update

- This is the most convenient way to update client's firmware remotely or update all clients' firmware within a group.



**Step 1. Choose
Firmware Update
from MSO**



**Send firmware and
command via LAN**

**Step 3. The update
is complete when
you see the
following message**

**Update complete !
Reboot Now**

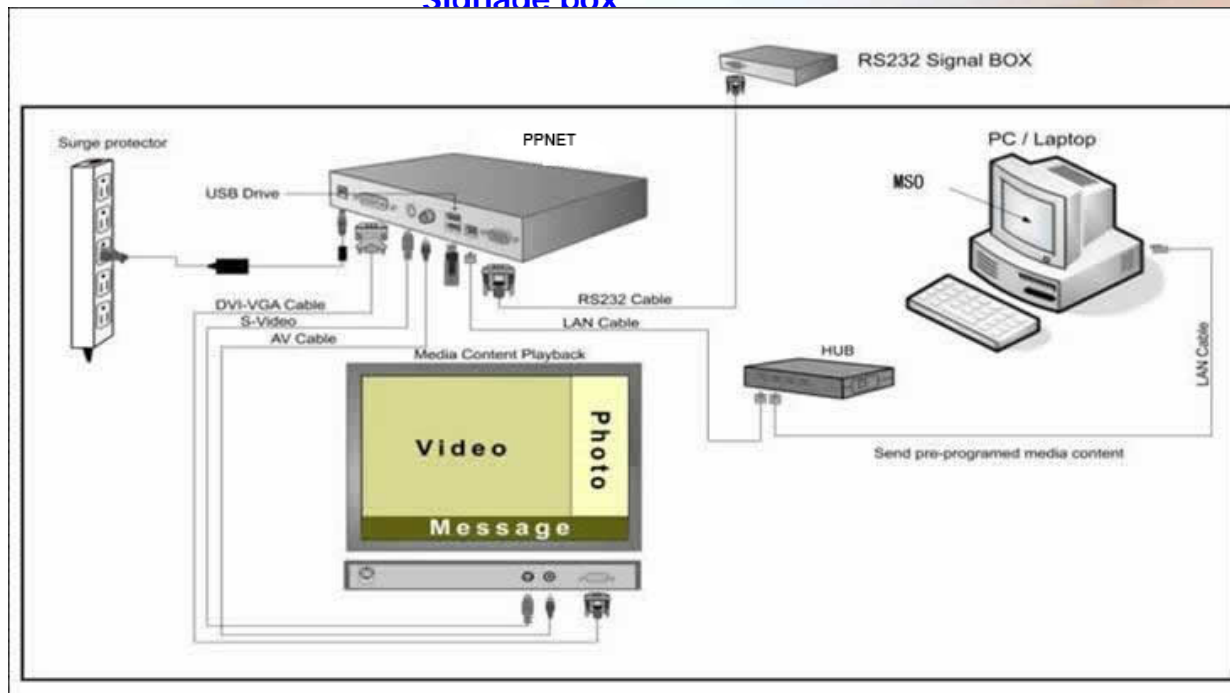
Firmware Update via USB

Extract firmware file to a USB flash drive -> insert the USB drive into the Signage box -> power on the signage box

- You may choose to update client's firmware via USB when you do not have Ethernet connection.**

Step 2. Insert the USB flash drive into Signage box

Step 1. Save firmware in USB flash drive



Step 3. The update is

Switch Client IP mode

**MSO Plus-> open/create a group
-> highlight a client -> switch
client IP mode**

- In Signage Plus, you will be able to select different IP mode for clients.
 - Fixed mode is ideal for clients having fixed IP either inside Intranet or Internet.
 - DHCP mode is ideal for clients would like to obtain IP automatically through DHCP server.

The screenshot shows the 'Net Configuration' window for a device named 'Nelson1' with MAC address '00:10:E1:86:00:2C'. The 'IP Mode' dropdown menu is highlighted with a red circle and set to 'FIXED'. The 'Server IP' is '192.168.0.22'. Below, the 'Client LAN Config' section shows 'Fixed IP' as '192.168.0.128', 'Subnet Mask' as '255.255.255.0', 'Gateway' as '192.168.0.1', and 'DNS' as '192.168.0.1'. The 'Client WLAN Config' section has 'Enable WLAN' checked, 'Fixed IP' as '192.168.252.249', 'IP Mask' as '255.255.0.0', 'Gateway' as '192.168.1.254', 'ESSID' as 'winmate', 'Channel' as '6', and 'WDNS' as '192.168.1.1'. It also includes a 'WEP' section with 'DEFKEY' set to '2' and four keys, all with the value '1234567890'. At the bottom are buttons for 'Time Sync', 'Reboot', and 'Exit'.

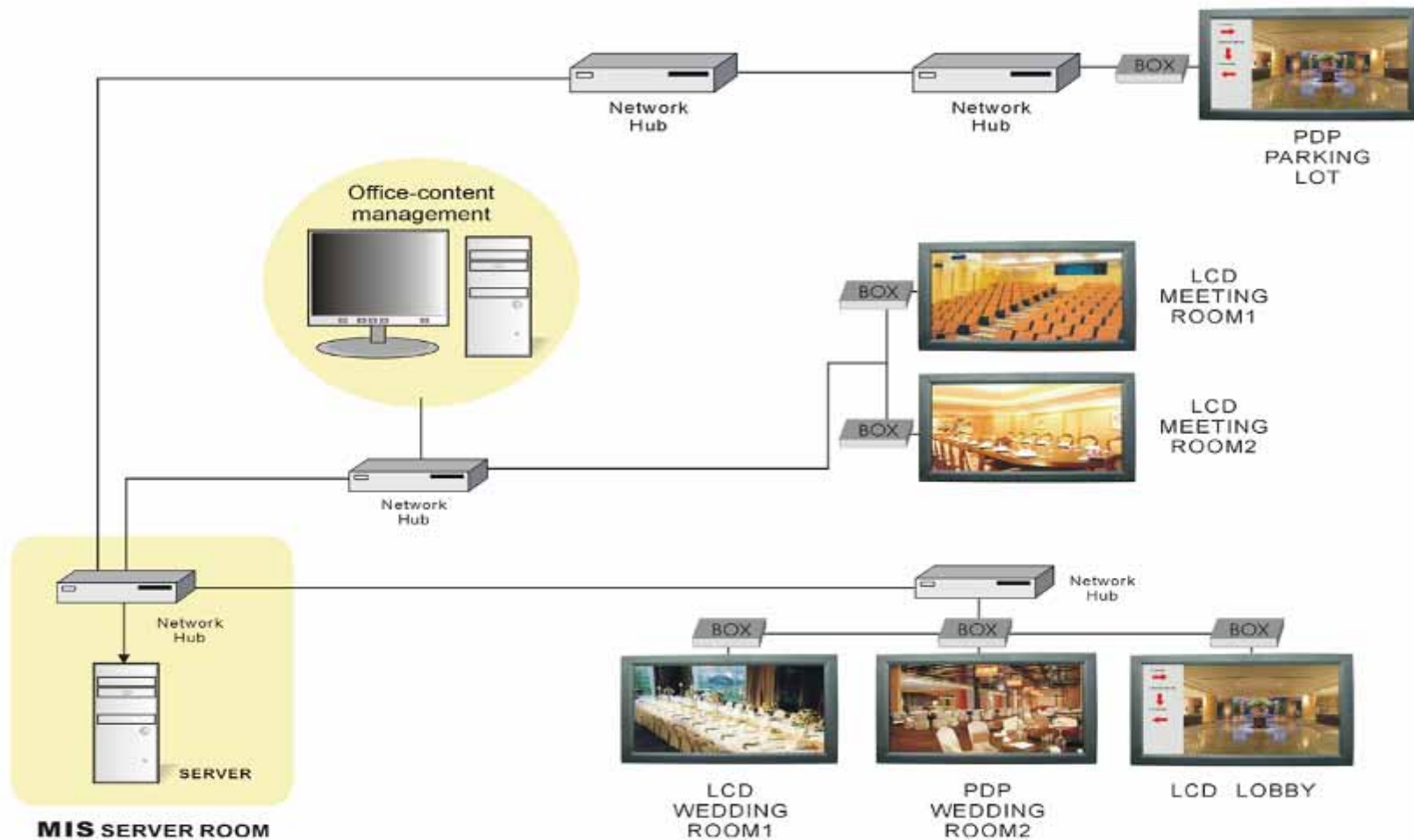
IP Mode	
Mode	FIXED

Client LAN Config	
Fixed IP	192.168.0.128
Subnet Mask	255.255.255.0
Gateway	192.168.0.1
DNS	192.168.0.1

Client WLAN Config	
<input checked="" type="checkbox"/> Enable WLAN	
Fixed IP	192.168.252.249
IP Mask	255.255.0.0
Gateway	192.168.1.254
ESSID	winmate
Channel	6
WDNS	192.168.1.1
<input type="checkbox"/> WEP	
DEFKEY	2
KEY1	1234567890
KEY2	1234567890
KEY3	1234567890
KEY4	1234567890

Application Scene - Hotel

- Lobby, Wedding room, Meeting Room,...



Application....

- Restaurant



- Airport Signage



- Corporate Front-Desk



- Office building/ Elevator



Application...

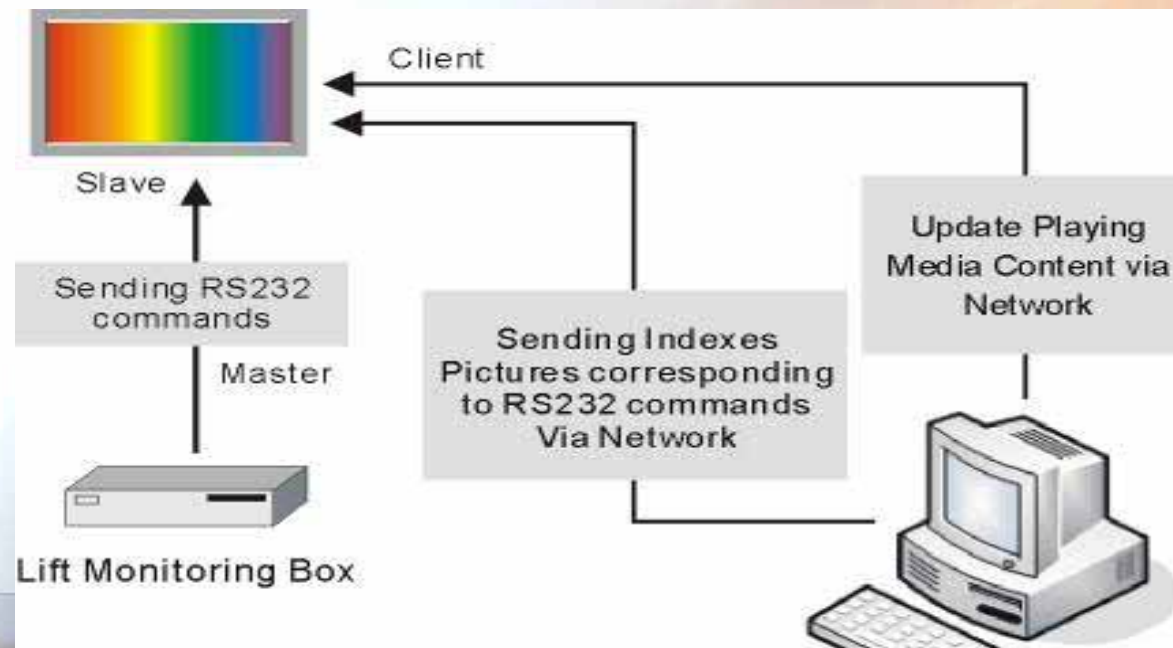
- Night club



Add-on Play Control

- **RS232 control in elevator**

- Sending RS232 commands to the signage box so that the signage box will react some pre-determined actions (paste picture, paste index, pause, fast forward,...)
- RS232 connection channel is for sending command only.
- Ethernet connection channel is for sending Media contents and pre-determined actions' data (pictures/ indexes want to paste)
- The re-act of the signage box to the RS232 command is real-time.



Product Outlook

- **Box**



Package /Accessories

- **Main System** x1
- **DC Adapter** x1
- **Power Cord** x1
- **User Manual CD** x1
- **DVI to VGA cable** x1 (Box only)

